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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,916	07/26/2000	Randy K. Roushall	10002969-1	8206

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EXAMINER

EL SHAMMAA, MARY A

ART UNIT	PAPER NUMBER
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2881

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/625,916

Applicant(s)

ROUSHALL ET AL.

Examiner

Mary A. El-Shammaa

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2000 is/are: a) ☒ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: On page 1, line 4 the serial number has been omitted.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Mason (5,712,480).

Regarding claims 1 and 14, Mason discloses in Fig. 2 a data acquisition system (22) and method comprising producing a plurality of data samples from a transient sequence and accumulating corresponding data samples across the transient sequence through two or more parallel accumulation paths (28, 30 – see parallel paths in the figure) (Col. 1, Line 66 through Col. 2, Line 2; Col. 3, Line 60 through Col. 4, Line 2; Col. 4, Lines 8-17; Col. 7, Lines 49-53; Col. 9, Lines 50-53; Col. 11, Lines 30-41; Col. 12, Lines 24-34).

Regarding claim 2, Mason discloses the system further comprising a sampler (66 – according to page 7, line 13 of the Applicant's specification, a high speed flash analog-to-digital

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converter is an example of a sampler) coupled to the accumulator and configured to produce a plurality of data samples from a transient sequence (Col. 1, Lines 59-63; Col. 4, Lines 14-17, 47-56; Col. 5, Lines 41-46; Col. 6, Lines 42-60; Col. 7, Lines 49-53; Col. 9, Lines 25-58; Col. 11, Lines 42-46).

Regarding claims 3 and 13, Mason discloses the sampler comprising an analog-to-digital converter (**66**) (Col. 1, Lines 59-63; Col. 4, Lines 14-17, 47-56; Col. 5, Lines 41-46; Col. 6, Lines 42-60; Col. 7, Lines 49-53; Col. 11, Lines 42-46).

Regarding claims 4, 5, 12, and 15-18, Mason discloses a controller coupled to the accumulator and configured to cycle the accumulation of data samples through each of the accumulation paths (Col. 3, Lines 49-57).

Regarding claim 6, Mason discloses the accumulation path comprising an adder (**296**) and a memory (**298**) (Col. 9, Lines 35-43).

Regarding claim 7, Mason discloses the memory comprising a dual port random access memory (**298**) (Col. 5, Lines 12-16, 35-38; Col. 7, Lines 7-11; Col. 9, Lines 37-45; Col. 11, Lines 11-16).

Regarding claims 8 and 9, Mason discloses each accumulation path, coupled in series, being configured to produce an output representative of the sum of two inputs (Col. 3, Line 60 through Col. 4, Line 20; Col. 4, Lines 44-63; Col. 5, Lines 22-24; Col. 9, Lines 14-16; Col. 10, Lines 1-5; Col. 11, Lines 42-54; Col. 12, Lines 24-38).

Regarding claim 10, Mason discloses the system further comprising an ion detector (**42**) (Col. 2, Lines 2-8; Col. 3, Lines 45-65; Col. 4, Lines 30-43).

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Regarding claims 11, 19, and 20, Mason discloses a time-of-flight mass spectrometer (10) comprising an ion detector (42) configured to produce a transient sequence, a sampler (66) configured to produce a plurality of data samples from the transient sequence, and an accumulator (294) coupled to the sampler, comprising two or more accumulation paths and configured to accumulate corresponding data samples across the transient sequence through the different accumulation paths (Col. 1, Line 66 through Col. 2, Line 27; Col. 3, Line 34 through Col. 4, Line 37; Col. 6, Lines 42-44; Col. 9, Lines 35-53; Col. 10, Lines 28-43; Col. 11, Lines 30-52; Col. 12, Lines 24-47).

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (5,777,326 – pertaining to a method and apparatus for extending the dynamic range of a data acquisition device), (5,027,072 – pertaining to a data acquisition method used in spectroscopy), (3,937,955 – pertaining to a spectrometer).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary A. El-Shammaa whose telephone number is 703.308.0851. The examiner can normally be reached on M-F (8:30am-5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 703.308.4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9318 for regular communications and 703.872.9319 for After Final communications.

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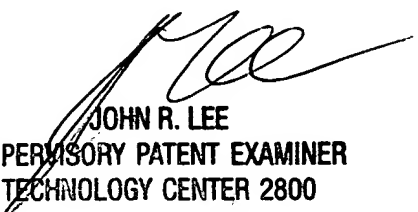
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.872.9317.

mae

May 21, 2003



JOHN R. LEE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800